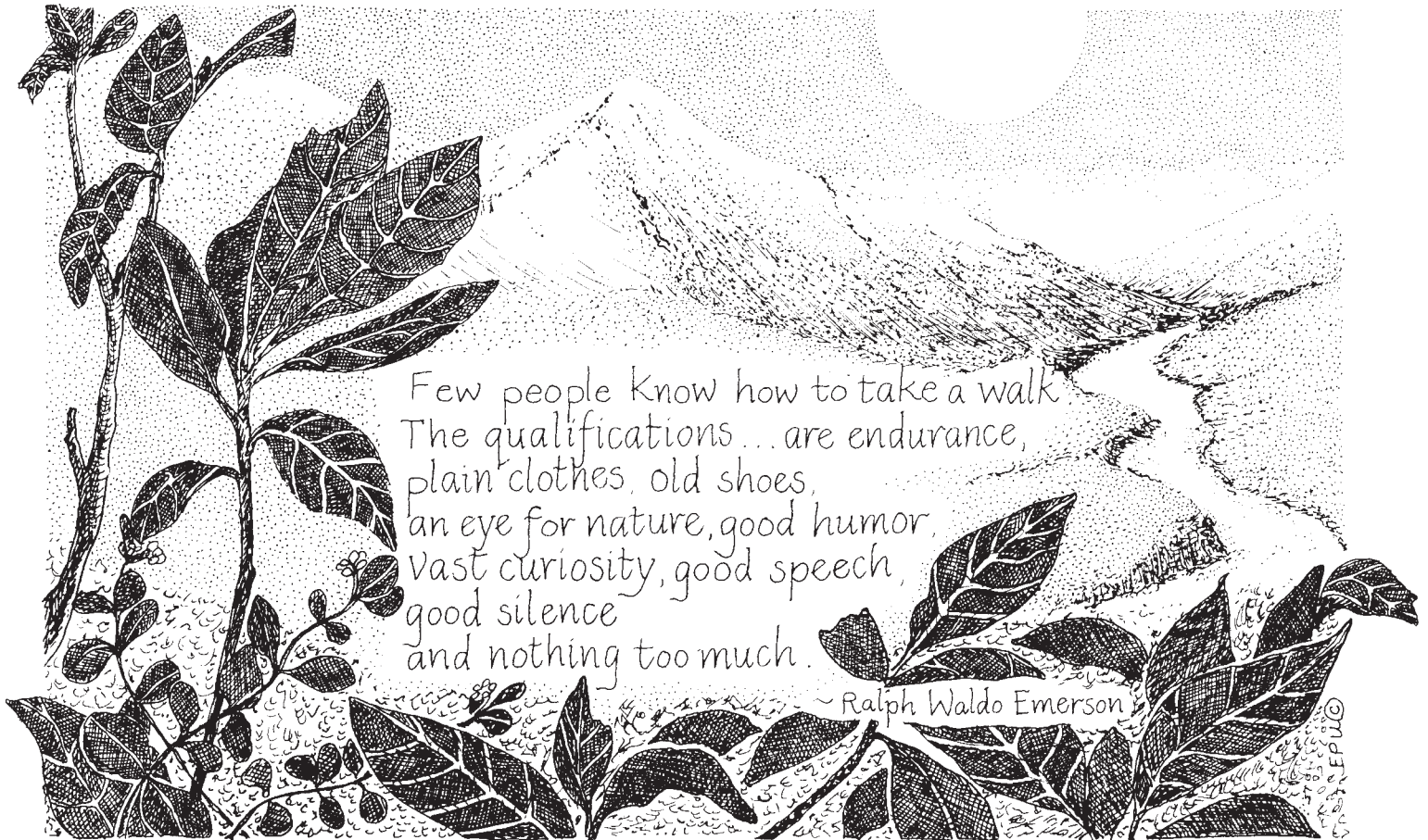


Growing WILD

Utah's Project WILD Newsletter

Spring '91



Few people know how to take a walk.
The qualifications... are endurance,
plain clothes, old shoes,
an eye for nature, good humor,
vast curiosity, good speech,
good silence
and nothing too much.

~ Ralph Waldo Emerson

Keeping Your Feet on the Ground

It's that time of year again when the best teaching -- and the best learning -- can take place out-of-doors.

The vernal equinox, when the sun is directly above the equator on March 21, heralds the return of spring to the northern hemisphere. The snow begins to melt. Green grasses start to grow. Birds sing in the early morning. Utah's bald eagles leave for their breeding grounds far to the north. Trees bud. Flowers bloom. Soon, even the black bears will leave their winter dens, ready to find emerging grasses, old acorns, grubs, earthworms and winter-killed carrion.

The life cycles of plants and animals are adapted to the changes in the seasons. The spring season gives us a rich opportunity to explore firsthand the many plants and animals common to our local areas -- right outside the classroom. With this issue of *Growing WILD*, Utah's Project WILD celebrates spring and the many opportunities we have to be outside!



meadowlark

*Yellow meadowlark
Breaking open the dawn with song
Soon the dark is gone!*

ANIMAL POETRY Takes Students "Outside"

The Haiku poem above was written by a thirteen year old student. She was just one of several students who were incarcerated at the Youth Correction Center in Vernal, Utah, when Glenna Huff was teaching there.

Because these students could not go outside to experience their natural surroundings, Glenna had the students take the trip outside by using their imaginations. According to Glenna, "The results of this activity in this setting were outstanding! Since the students were locked in, it gave them a sense of freedom that seemed to be very refreshing."

Glenna, now retired, used Project WILD often with her students to encourage environmental learning. She found many of her students to be gifted, and she found them to be at a point in their lives when they were very willing to appreciate freedom. "It's not an isolated incident that you find gifted and talented students among troubled youth," Glenna said recently. She also found many students who were artistic and poetic, which she believes is also not uncommon in this population. For these students, Glenna selected Project WILD activities that integrated these skill areas. If she weren't retired? "I'd be right back there, working with those students and encouraging learning about the environment." Thanks, Glenna, for talking with us from St. George and sharing your students' work.

The activity below is printed with permission from *Expedition: Yellowstone!*, a curriculum about Yellowstone National Park designed for upper elementary students. *Expedition: Yellowstone!* focuses on the Park's geology, plant and animal diversity, and history. It may be taught in the school classroom or on-site at the Buffalo Ranch in the LaMar Valley.

To obtain information about scheduling trips for *Expedition: Yellowstone!* and to ask for a registration form, contact Jenny Matsumoto, *Expedition Yellowstone!*, P.O. Box 168, Yellowstone National Park, WY 82190 (307) 344-7381 ext. 2338. All classes selected for expeditions are drawn through a lottery system, and applications for spring of 1992 are now being accepted. The deadline for submitting applications for next spring is Sept. 1, 1991. Before mailing in the registration form, classes must purchase the *Expedition: Yellowstone!* curriculum and storybook for \$50.

Jenny would also like to hear from teachers who would be interested in the opportunity to teach in the *Expedition: Yellowstone!* program. Contact her at the above address for more information.

From Expedition: Yellowstone!

Make A Landscape

SUBJECT: Science

THEME: Erosion

OBJECTIVE: Students will be able to describe three ways land is eroded.

METHOD: Students create erosion on small "mountains."

BACKGROUND: Erosion often occurs so slowly it's difficult to observe. Yet it influences profoundly the shape of the land. Knowing how erosion affects soil helps us read old stories in the faces of the hills.

MATERIALS: Each team will need an "Erosion Kit" with the following items: bucket of water, plastic misting bottles, hand lenses, "Making Erosion Worksheet" (see page 4), and "Erosion Investigation Worksheet" (see page 5).

PROCEDURE: The teacher will need to build the "mountains." These mountains should consist of piles of dirt, each with a variety of soil and rocks in them. Students should work in teams, following the instructions on the "Making Erosion Worksheet." Ask teams to switch landscapes before they go on to the "Erosion Investigation Worksheet." Discuss these findings, asking students to describe the erosion they found on each landscape.

EXTENSION: Ask students to find examples of erosion around their home and school. What forces contributed to it? Photograph these areas and display them in the classroom. See also the Project WILD Aquatic activity WATERSHED and the Outdoor Biology Instructional Strategies (OBIS) activity "Hold a Hill."

From Expedition: Yellowstone!

MAKING EROSION WORKSHEET

Use the materials in your "Erosion Kit" to conduct the following investigation.

WIND

1. Air moving across the landscape changes it. Blow on different parts of your pile. Which kinds of soil move the easiest? Which don't move very easily? Which don't move at all? Record your observations.

2. If wind blew across your pile for a long time, predict how it would look.

WATER

1. Water, as a liquid and as a solid (ice), changes the landscape. By varying the amount of water you pour on your pile, you will get different results. Write down what happens when you:
 - a. pour a lot of water all at once in one place.

 - b. pour a little water all at once in once place (pick a second place to pour).

 - c. pour a lot of water slowly in one place (pick a third place).

 - d. pour a little water slowly in one place (pick a fourth place).

(continued)

- e. use the mist bottle to mist a lot of water in one place (pick a fifth place).
- f. mist only a little water in one place (pick a sixth place).
- g. mist a little water all over the pile.
- h. mist a lot of water all over the pile.
- i. make notes about anything else you noticed about water (as a liquid or a solid) and what it did to your pile.

EROSION INVESTIGATION WORKSHEET

Visit another team's dirt pile. Investigate the erosion which has taken place. Put a check mark beside each question if you find a place where you think that event happened.

Can you identify where the other group:

1. blew on their pile?
2. poured a lot of water all at once in one place?
3. poured a little water all at once in one place?
4. poured a lot of water slowly in one place?
5. poured a little water slowly in one place?
6. misted a lot of water in one place?
7. misted only a little water in one place?
8. misted a little water all over the pile?
9. misted a lot of water all over the pile?
10. had something else happen?

From Living Lightly in the City, Vol. 1, K-3 (\$17 plus \$2 shipping from Schlitz Audubon Center)

FLYING FEATHERS HUNT

Do birds live in your neighborhood? Where do they nest and find food?

What clues do they leave for us to find? Let's go on a Flying Feathers Hunt and find out!

FIND BIRDS IN ACTION:



A bird singing

A bird soaring

A bird flapping its wings

A flock of birds (What are they doing?)

A bird feeding (What is it eating?)

A very large bird

A very small bird

FIND BIRD CLUES:

Feathers (What color are they?)

A bird's nest (What do you think it's made out of?)

Bird prints on the ground

IF YOU WERE A BIRD, FIND:

Food you might eat (What is it?)

A good place to build a nest (Why?)

Things to build your nest with

A place to get water

THINGS TO THINK ABOUT:

Where did you find the most birds? Why?

What do birds need for survival?

How can people help birds in the city?

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Learning Opportunities. . .

The Intermountain Environmental Educational Foundation announces five, week-long environmental education workshops for teachers and resource agency people. Although each has unique features, all teach open-ended investigation, cooperative learning, small group problem solving and the use of higher-level thinking skills and discussion skills to improve student motivation and self-concept.

Alpine Natural Resource Education Conference - June 17-21

Eastern Idaho 4-H camp, Alpine, WY, \$200 for registration, room and board; 2 semester credits in Education or Science from Idaho State or Boise State (\$29 per credit)

UNIQUE TOPICS:

- natural history interpretation
- design of environmental activities
- neutral discussion skills

CONTACT: Jim Norton, West Minico Junior High, Rt. 2 Box 2081, Paul, ID 83347; (208) 438-5018 (w), (208) 678-3773 (h).

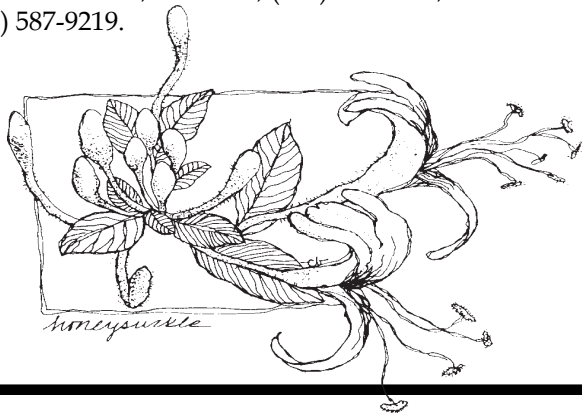
The Sawtooth Workshop - June 23-28

Luther Heights Camp at Lake Alturas - 40 miles north of Ketchum, ID, \$150 for registration, room and board; 2 graduate credits from College of Idaho (\$25 per credit; pass/fail) or Boise State (\$28 per credit)

UNIQUE TOPICS:

- issue analysis techniques
- neutral discussion skills
- simulation games
- values clarification

CONTACT: Lorretta Price, 1370 Juniper Dr., Mountain Home, ID 83647; (208) 587-2588, (208) 587-9219.



Heartland Peaks Outdoor Education Workshop - July 28 - August 2

Heartland Peaks Camp near Donnelly, ID, \$125 for registration, room and board; 2 credits from Boise State University (\$28 per credit)

UNIQUE TOPICS:

- minority careers in natural resource fields
- ways to conduct investigative field studies
- the role of forest fires in the west

CONTACT: Julie Yamamoto, Rt. 8, Box 292A, Caldwell, ID 83605; (208) 765-5525.

Central Utah Outdoor Education Workshop - July 29 - August 2

Gooseberry Guard Station in Fishlake National Forest, near Salina, UT, \$100 for registration, room and board; 3 semester hours of graduate credit from BYU (\$45 total)

UNIQUE TOPICS:

- investigate a working ranch
- take a Project Learning Tree or Project WILD Workshop
- plan an outdoor classroom

CONTACT: Bill Wood, Soil Conservation Service, P.O. Box 534, Richfield, UT 84701; (801) 527-3873 or 896-6261.

Nevada Outdoor Education Workshop - August 11-16

Nevada State 4-H Camp at Lake Tahoe, \$175 for registration, room and board; 2 credits from Nevada-Reno (\$82 per credit)

UNIQUE TOPICS:

- a community investigation
- issue analysis techniques
- study of Nevada issues
- design of environmental activities
- mountain lake nature hike

CONTACT: Shirley Pollock, Washoe High School, 2880 Sutro Building G, Reno, NV 89512; (702) 333-5150 (w) or (702) 849-2180 (h).

. . .in the Out-Of-Doors

Identification of Utah Birds

Lectures: Thursdays, April 4 - May 9, 7:00 - 9:30 p.m.
Field Sessions: Saturdays, April 13, 27, and May 11
Instructors: Ella Sorenson and Craig Needy
Location: Utah Museum of Natural History, Rm. 11
Fee: \$70.00 UMNH members/\$77.00 non-members
Limited to 30 participants

Learn to identify over 100 species of birds that occur regularly in Utah through classroom sessions, using slides and museum specimens. The class also includes three field sessions to local bird habitats.

Gardening with Native Plants

Saturday, April 13, 9:30 a.m. - 12:30 p.m.
Instructor: W. Richard Hildreth, Red Butte Gardens & Arboretum
Location: Utah Museum of Natural History, Rm. 319
Fee: \$8.00 UMNH members/\$10.00 non-members
Limited to 30 participants

This three-hour workshop will cover trees, turf, irrigation, bulbs, shrubs, vines, ground cover, annuals and perennials. Learn where they grow naturally and how you can prepare your yard for planting natives. Discover how to fit microclimates in your yard, plan for sun and shade, and how to prepare your soil.

Keepers of the Earth

Friday, August 16, 4:30 - 7:30 p.m.
Saturday, August 17, 8:30 a.m. - 4:30 p.m.
Instructors: Joanne Williams and Bob Stack
Location: Friday, Utah Museum of Natural History;
Saturday, Wasatch Mountain Club
Fee: \$15.00 UMNH members/\$17.00 non-members
Credit: 1 hour
Limited to 30 teachers, K - 12

This course will utilize Keepers of the Earth by Michael J. Caduto and Joseph Bruchac to provide an interdisciplinary approach to teaching children about the earth and Native American cultures. Due to a generous grant, each participant will receive a copy of the book, containing numerous activities and lesson plans with comprehensive teachers' guide.

The University of Utah will be hosting William S. Fyfe as the 1991 McMurrin Distinguished Professor for spring quarter. In addition to the following lectures, Professor Fyfe will teach an undergraduate science core course spring quarter titled "Earth: Planet Under Stress" (Liberal Education 148). He is an outstanding and imaginative researcher and a major figure in international geosciences. His broad interests include geochemistry, resource development and conservation, nuclear waste disposal, the environment and, especially, humankind's demands on the environment. Both lectures will be held at 7:30 p.m. in the Fine Arts Auditorium, University of Utah. The public is invited, and admission is free.

GLOBAL CHANGE, April 4

Changes are occurring within earth's life support systems as a result of the influence of human activities. Question: What is the sustainable human population of earth?

WASTE DISPOSAL ON PLANET EARTH, April 11

Humans, particularly North Americans, produce vast quantities of waste products. Question: Are our present technologies sustainable?

Basin and Range Seminar - May 18-19

Sponsored by the Utah Audubon Chapter. This year the event will be held in the Raft River Mountains in northwestern Utah. If you're interested, contact Pat Briggs, President of Utah Audubon, 521-2446.

The Yellowstone Institute again offers field courses and nature study vacations for the 1991 season. For their latest catalog, contact The Yellowstone Association, P.O. Box 117, Yellowstone National Park, WY 82190; (307) 344-7381 ext. 2384. Also ask for their catalog of books, maps and pamphlets about Yellowstone.

For more information about other classes sponsored by the Utah Museum of Natural History, including classes on the geology of Moab, Utah's fossils and map reading, write for a spring class list from Utah Museum of Natural History, University of Utah, Salt Lake City, UT 84112.



EARTHWORKS

(adapted from EARTHWORKS by John Javna, The Salt Lake Tribune, February 3, 1991)

Spring is a great time of year to renew our commitment to our earth and its resources. It becomes more critical everyday that we don't waste glass, aluminum or any other resource. Students can provide a valuable community service by producing a map of places where things can be recycled or reused in your area.

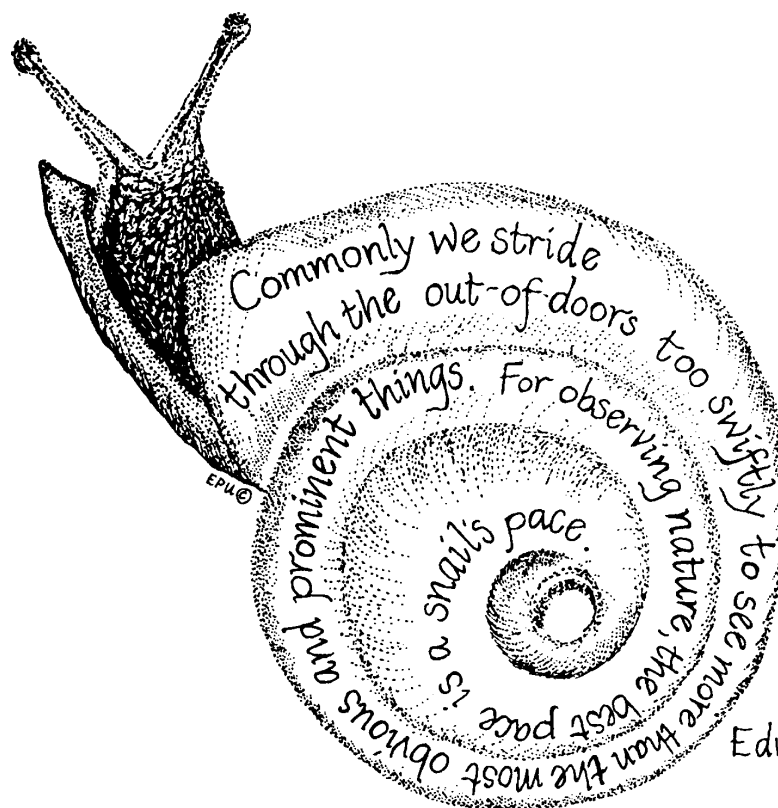
What you'll need:

- an area map that can be photocopied (local libraries or city offices often have maps that are not copyrighted)
- an up-to-date Yellow Pages
- a list of area businesses

Procedure:

- Using the Yellow Pages and other resources, make a list of all the recycling centers, used book-stores, used record stores and/or other secondhand dealers that you can find.
- Visit each of the establishments to gain basic information about its services.
- Transfer the collective information onto your map, including phone numbers as well as other information. Keep your maps as clear and legible as possible.
- Distribute the map. Ask your school PTA or other local service organization to cover the cost of printing your map.
- Encourage family and friends to use your map and RECYCLE and REUSE!

Growing WILD, Utah's Project WILD Newsletter
 Written and edited by Brenda Schussman and
 Daphne Sewing
 Cover and Page 1 illustrations by Ellen Petrick



Edwin Way Teale